

Designation	Species	Epitope	Western Blot	IHC	FACS	Epitope sequence
29C11	rabbit	Pro2	Yes	yes**	n.d.	IDELKEFLNQIDETLSNVE
31A5	rabbit	Pro3	Yes	yes**	yes	ELLQEFIDDNATTNAIDELK
6A1	rabbit	Pro2-3	Yes	n.d.	no	TTNAIDELKEFLNQ
14A12	rabbit	Pro3	Yes	n.d.	yes	ELLQEFIDDNATTNAIDELK
6B12	rabbit	Pro3	Yes	n.d.	yes	ELLQEFIDDNATTNAIDELK
2D3	rabbit	Pro5	Yes	n.d.	yes	SQHCYAGSGCPILLENVISKTI
16D8	rabbit	Pro3	Yes	n.d.	yes	ELLQEFIDDNATTNAIDELK
31-1H7	mouse	n.d.	Yes	n.d.	yes	SQHCYAGSGCPILLENVISKTI
197-1H11	mouse	Pro5	Yes	n.d.	no	
32-1G11	mouse	n.d.	Yes	n.d.	yes	
304-1A5	mouse	n.d.	Yes	n.d.	yes	
98-1F4	mouse	n.d.	Yes	n.d.	no	

Fig. 1A

pc.h.mam.6a1.cell-57.579.1.t7

CACCATGGAGACAGGCCTGCGCTGGCTTCTCCTGGTCGCTGTGCTCAAAGGTGTCCAGTGTCA
GTCGCTGGAGGAGTCCGGCGGTGCGCTGGTAACGCCTGGAGGATCCCTGACACTCACCTGCAC
AGTCTCTGGAATCGACCTCAGTAGCTATGGAGTGGGCTGGGTCCGCCAGGCTCCAGGGAAGG
GGCTGGAATACATCGGAATCATTAGTAAATTGATAACACATACTACGCCAACTGGGCGAAA
GGCCGATTACCATCTCCAAAACCTCGTCGACCACGGTGGATCTGAAAATGACCAGTCTGACA
ACCGAGGACACGGCCACCTATTCTGTACCAGAGGGTCTTTTGATCCCTGGGGCCAGGCACC
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pc.h.mam.16d8.cell-22.394.1.t7

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GCTGGAATGGATCGGAACCATAGTACTATTGGTAGCCATTTTACGCGAGCTGGGCGAGAGG
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pc.h.mam.16d8.cell-21.393.2.t7

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CCGATTACCATCTCCAAAACCTCGACCACGGTGGATCTGAAAATCACCAATCCGACAACCGA
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pc.h.mam.6b12.cell-19.339.4.t7

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AGTCTCTGGAATCGACCTCAGCACCTACGACATGACCTGGGTCCGCCAGGCTCCAGGGAAGG
GACTGGAATGGATCGGAACCATAGTACTTTGGTACCCCTTTTCCGCCAATTGGGCGAGAG
GCCGATTACCATCTCCAAGACCTCGACCACGGTGGATCTGAAAATCGCCAGTCCGACGACCG
AAGACACTGCCACATATTTTGTGGCAGATTGCGGATTGCTCATGATGGTGCCTTCTGGGGCC
CAGGCACGCTGGTCACCGTCTCCTCAGGGCAACCTAA

Fig. 1B

pc.h.mam.2d3.cell-65.576.1.f7

CCCATGGAGACAGGCTGCGCTGGCTTCTCCTGGTCGCTGTGCTCAAAGGTGTCCAGTGTCA
GAGCAGCTGAAGGAGTCCGGAGGAGGCTGGTCACGCCTGGGACACCCCTGACACTCACCTG
CACAGTGTCTGGAATCGACCTCAATATCGATGCAATGAGCTGGGTCGCCAGGCTCCAGGGA
AGGGGCTGGAATGGATCGGAATTATTGGTACTCGTGGTGGCAGATGGTTCGCGAGCTGGGCG
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AACCGAGGACACGGCCACCTATTTCTGTGCCAGTATCTATTCTGATAGTGGTACTTATACGAC
CTTGTGGGGCCAGGCACCCCGGTACCGTCTCCTCAGGGCAACCTAA

pc.h.mam.14a12.cell-3.333.1.f7

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GCTGGAATGGATCGGAACCATTAGTACTCGTAGTAGCACATACTACGCGAGCTGGGCGAAAG
GCCGATTACCATCTCCAAAACCTCGACCACGGTGGATCTGAAAATCACCAGTCCGACAACCG
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GATCGGAATGATTGGTATTGTTGGTAGTGGCACATAATANGCGACCTGGGCGAAAGGCCGAT
TCACCATTTCCAAAACCTGTGACCACGGTCGATTTGAAAATGACCAGTTTGACAACCGAGGA
CACGGCCACCTATTTTGTGTGAGAGGGGTAGTTTTANTTTTGCTACCGCCTTGTTGGGGCCCA
GGCACCTGGTCACCGTNTCCTCAGGGCAACCTAA

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TTTCCCTCAGCAGNTACGANATGACCTGGGTCGCCAGGCTCCAGGGAAGGGGCTGGAATGG
ATNGGAACCATTAGTANTTTGGTAATGGATAATACGCGACCTGGGCGAAAGGCCGATTAC
CATTTCCAAAACCTTGACCACCGTGGATTTGAAAATCACCAGTCCGACAACCGAGGACAGG
CCAAGTATTTTGTGGCAGATTCGGATTGCTGGTGATGGTGTCTTTGGGGCCCGGGCACGCT
GGTCACCGTNTCCTCAGGGCAACCTAA

Fig. 1C

Pro-1	MKLLMVLMLAALSQHCYAGSGCP	LENNISK	TINPQVSKTEYKELLQEF	IDDNATTNAIDELKECF	LNQTDETLSNVEVFMQLIYDSSLCDLF
Pro-2	MKLLMVLMLAALSQHCYAGSGCP	LENNISK	TINPQVSKTEYKELLQEF	IDDNATTNAIDELKECF	LNQTDETLSNVEVFMQLIYDSSLCDLF
Pro-3	MKLLMVLMLAALSQHCYAGSGCP	LENNISK	TINPQVSKTEYKELLQEF	IDDNATTNAIDELKECF	LNQTDETLSNVEVFMQLIYDSSLCDLF
Pro-4	MKLLMVLMLAALSQHCYAGSGCP	LENNISK	TINPQVSKTEYKELLQEF	IDDNATTNAIDELKECF	LNQTDETLSNVEVFMQLIYDSSLCDLF
Pro-5	MKLLMVLMLAALSQHCYAGSGCP	LENNISK	TINPQVSKTEYKELLQEF	IDDNATTNAIDELKECF	LNQTDETLSNVEVFMQLIYDSSLCDLF
Pro-7	MKLLMVLMLAALSQHCYAGSGCP	LENNISK	TINPQVSKTEYKELLQEF	IDDNATTNAIDELKECF	LNQTDETLSNVEVFMQLIYDSSLCDLF
Pro-8	MKLLMVLMLAALSQHCYAGSGCP	LENNISK	TINPQVSKTEYKELLQEF	IDDNATTNAIDELKECF	LNQTDETLSNVEVFMQLIYDSSLCDLF
Pro-9	MKLLMVLMLAALSQHCYAGSGCP	LENNISK	TINPQVSKTEYKELLQEF	IDDNATTNAIDELKECF	LNQTDETLSNVEVFMQLIYDSSLCDLF
Glob-2	MKLLMVLMLAALSQHCYAGSGCP	LENNISK	TINPQVSKTEYKELLQEF	IDDNATTNAIDELKECF	LNQTDETLSNVEVFMQLIYDSSLCDLF
Pro-20	MKLLMVLMLAALSQHCYAGSGCP	LENNISK	TINPQVSKTEYKELLQEF	IDDNATTNAIDELKECF	LNQTDETLSNVEVFMQLIYDSSLCDLF
N-terminal recombinant	GSQMKETA	AAKFERQHMDSPDLG	TDDDDKAM	ISDPNSHCYAGSGCP
	Peptide with Enterokinase and Thrombin cleavage sites				Mammaglobin sequence

Fig. 2

Reactivity of Mouse Monoclonal antibodies to Mammaglobin with peptides and recombinants											
Antibody	Pro2	Pro-3	Pro-4	Pro-5	Pro-6	Pro-7	Pro-8	Glob-2	amma+Tlnal	recon	TRX
31-1H7	0.065	0.059	0.059	0.061	0.06	0.066	0.07	0.063	2.788	0.074	0.116
32-1G11	0.056	0.055	0.054	0.054	0.055	0.057	0.055	0.055	2.75	0.057	0.07
197-1H11	0.055	0.054	0.053	1.139	0.054	0.055	0.055	0.055	2.502	2.596	0.064
304-1A5	0.054	0.054	0.053	0.053	0.054	0.053	0.053	0.054	2.7	0.056	0.064
98-1F4	0.068	0.055	0.053	0.055	0.059	0.064	0.11	0.112	2.819	0.118	0.121
967	0.055	0.057	0.056	0.056	0.055	0.62	0.056	0.637	1.566	0.069	0.159
Blank	0.056	0.055	0.053	0.055	0.052	0.053	0.053	0.053	0.056	0.052	0.06

Fig. 3A

Mammaglobin rabbit monoclonal 6B12

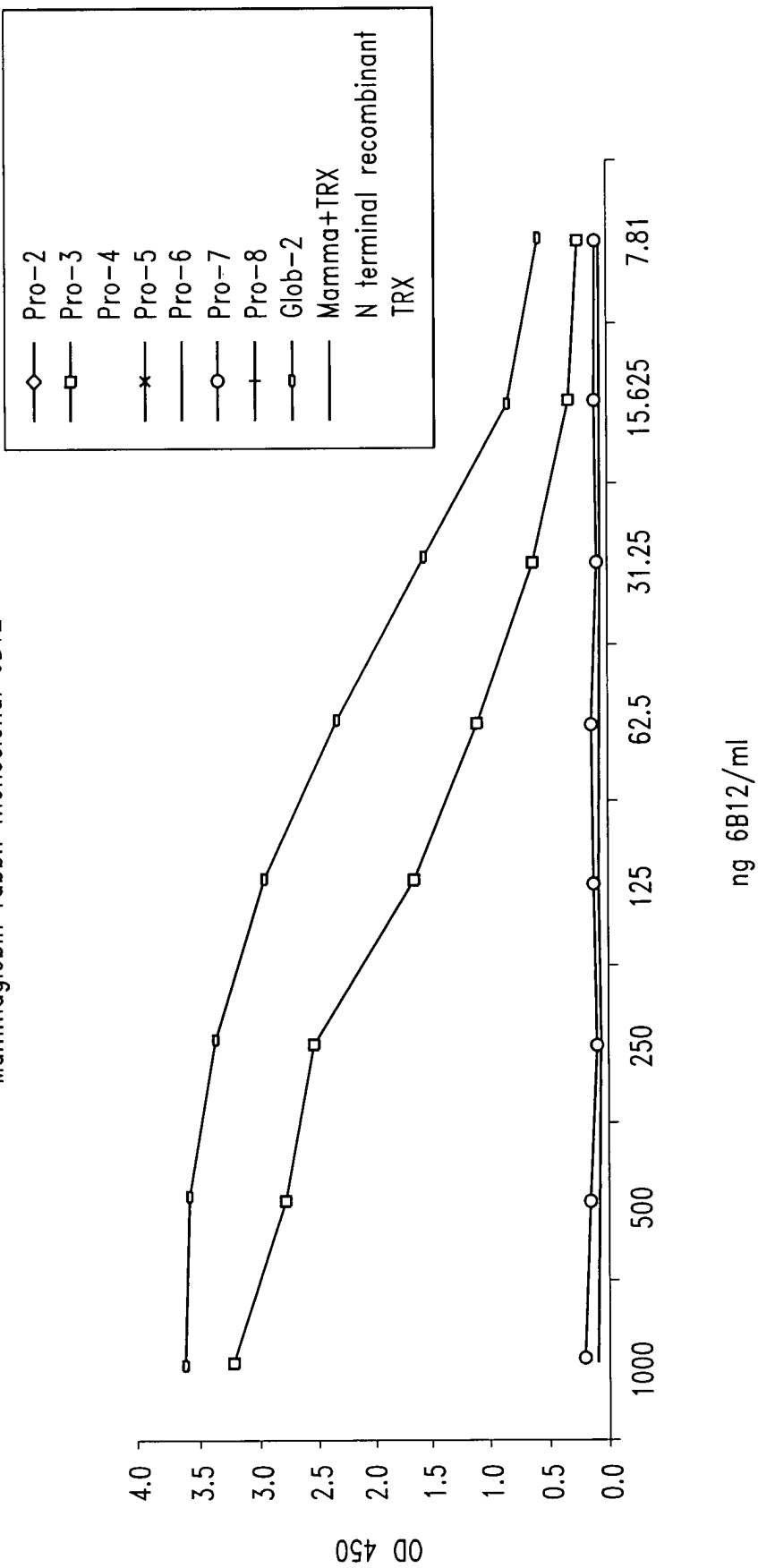


Fig. 3B

Mammaglobin rabbit monoclonal 29C11

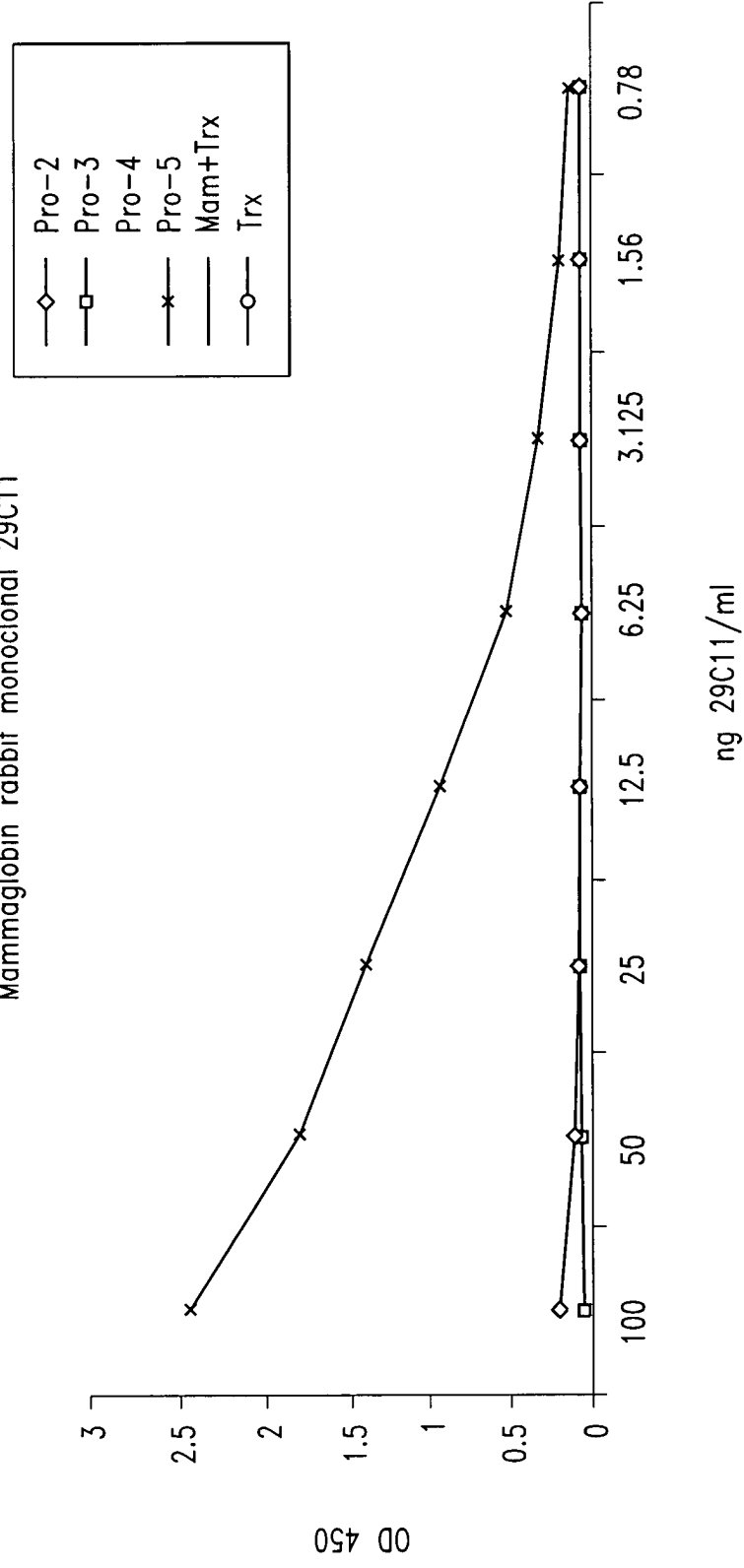


Fig. 3C

Mammaglobin rabbit monoclonal 2D3

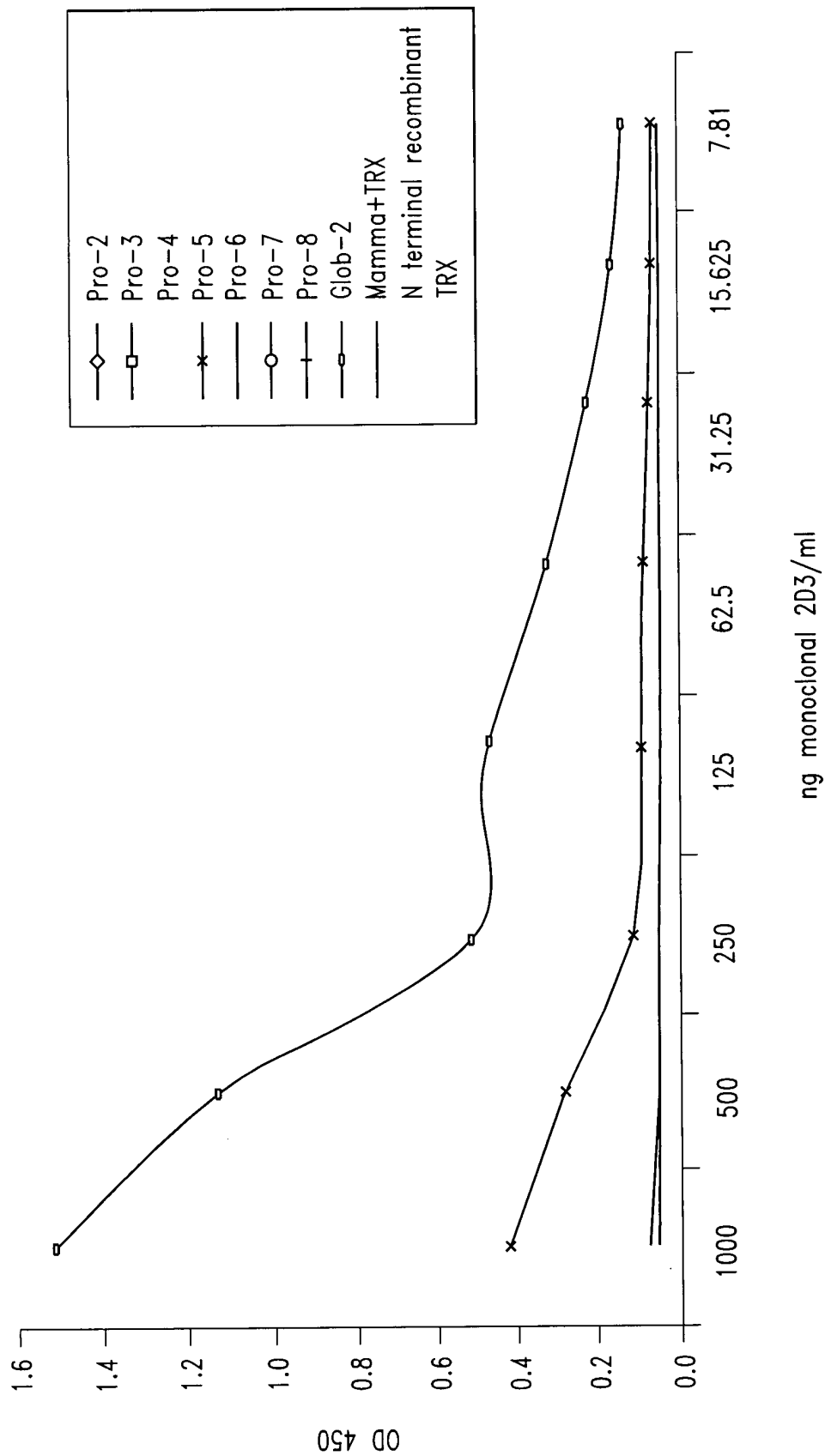


Fig. 3D

Staining of permeabilized human breast tumor cell line MDA-MB415 with rabbit anti-mammaglobin monoclonal antibodies

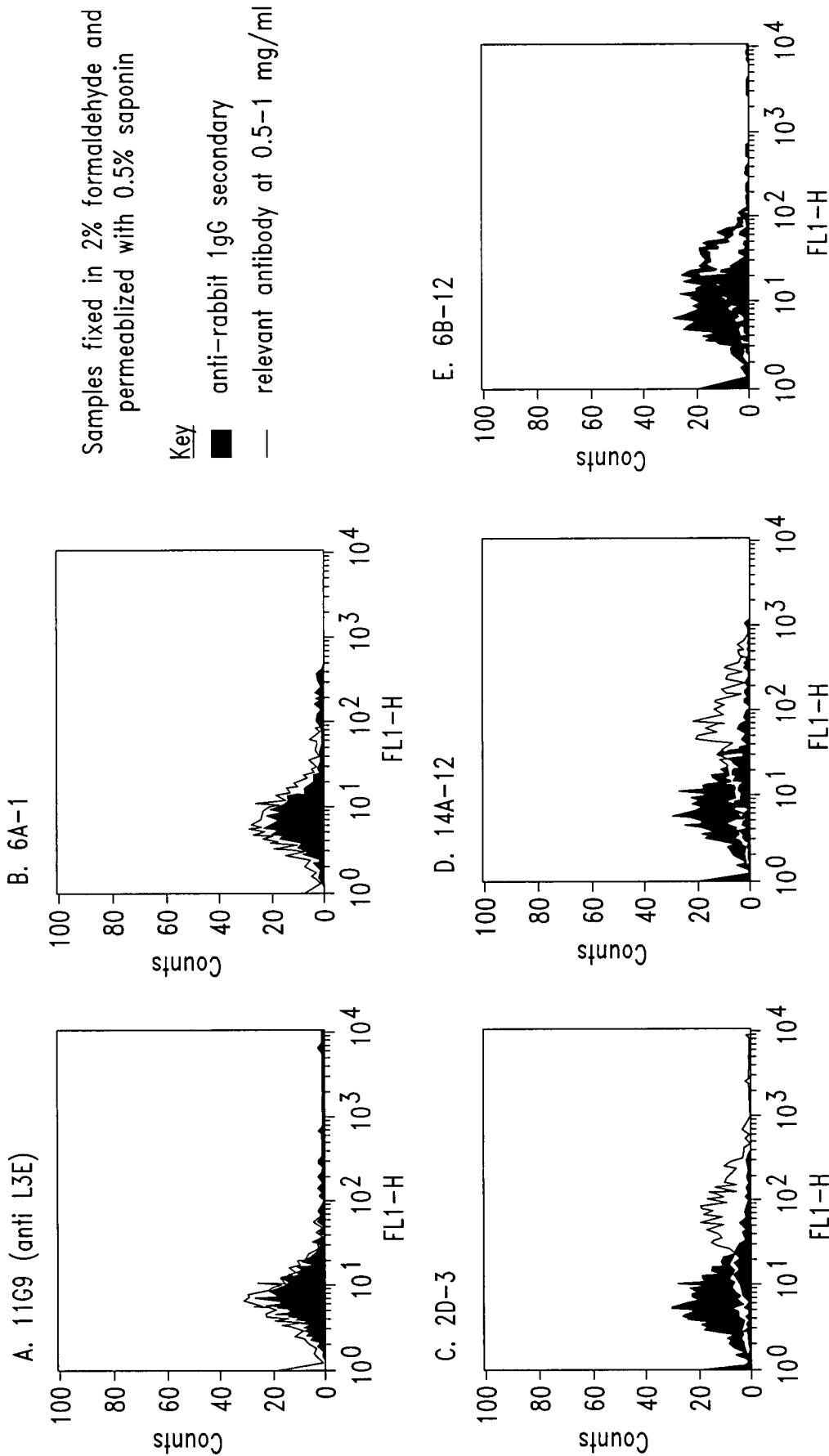


Fig. 4A

Staining of permeabilized human breast tumor cell lines
with murine anti-mammaglobin monoclonal antibodies

Key

- Secondary alone
- Primary at 1:10

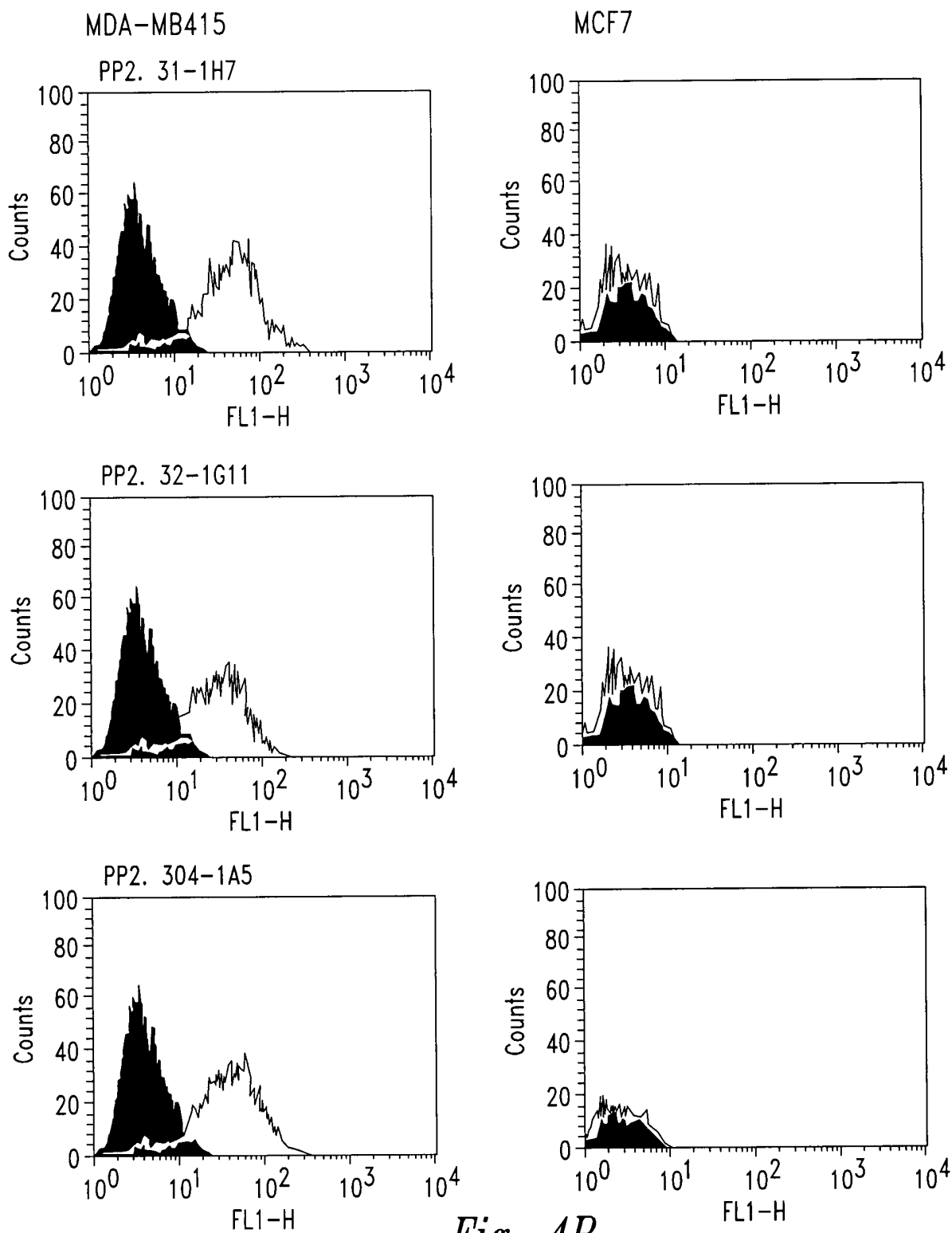
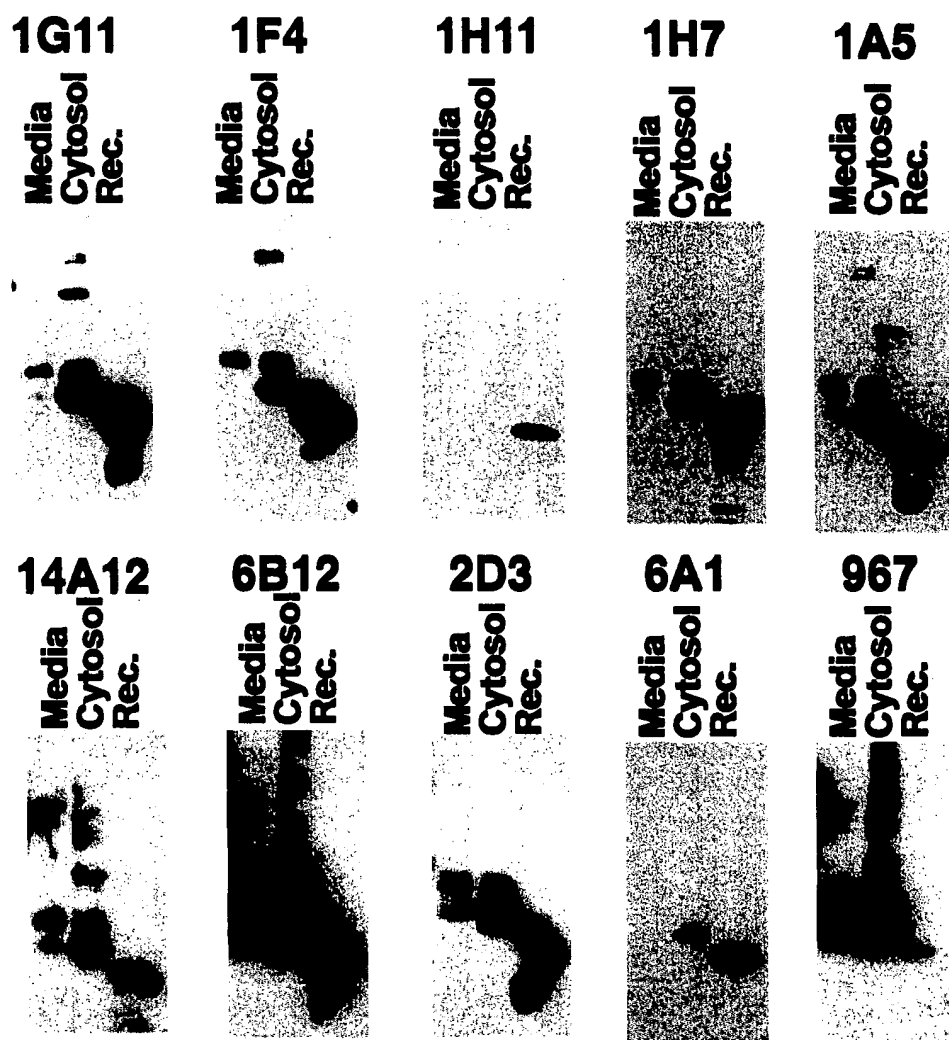


Fig. 4B

Western blot analysis of Mammaglobin from MB415 cells



Mouse monoclonal: 1G11, 1F4, 1H11, 1H7, 1A5
 Rabbit monoclonal: 14A12, 6B12, 2D3, 6A1
 Rabbit polyclonal: 967

Rec.: bacterially expressed recombinant mammaglobin

Fig. 5

IHC analysis of mammaglobin expression in normal tissue.

Normal Tissue	Mam-29C11/31A5
Breast	3-
Adrenal	0
Cervix	0
Colon	0
Duodenum	0
Gall bladder	0
Ileum	0
Kidney	0
Ovary	0
Pancreas	0
Paroud gland	0
Prostate	0
Skeletal muscle	0
Spleen	0
Testis	0

Fig. 6

442500

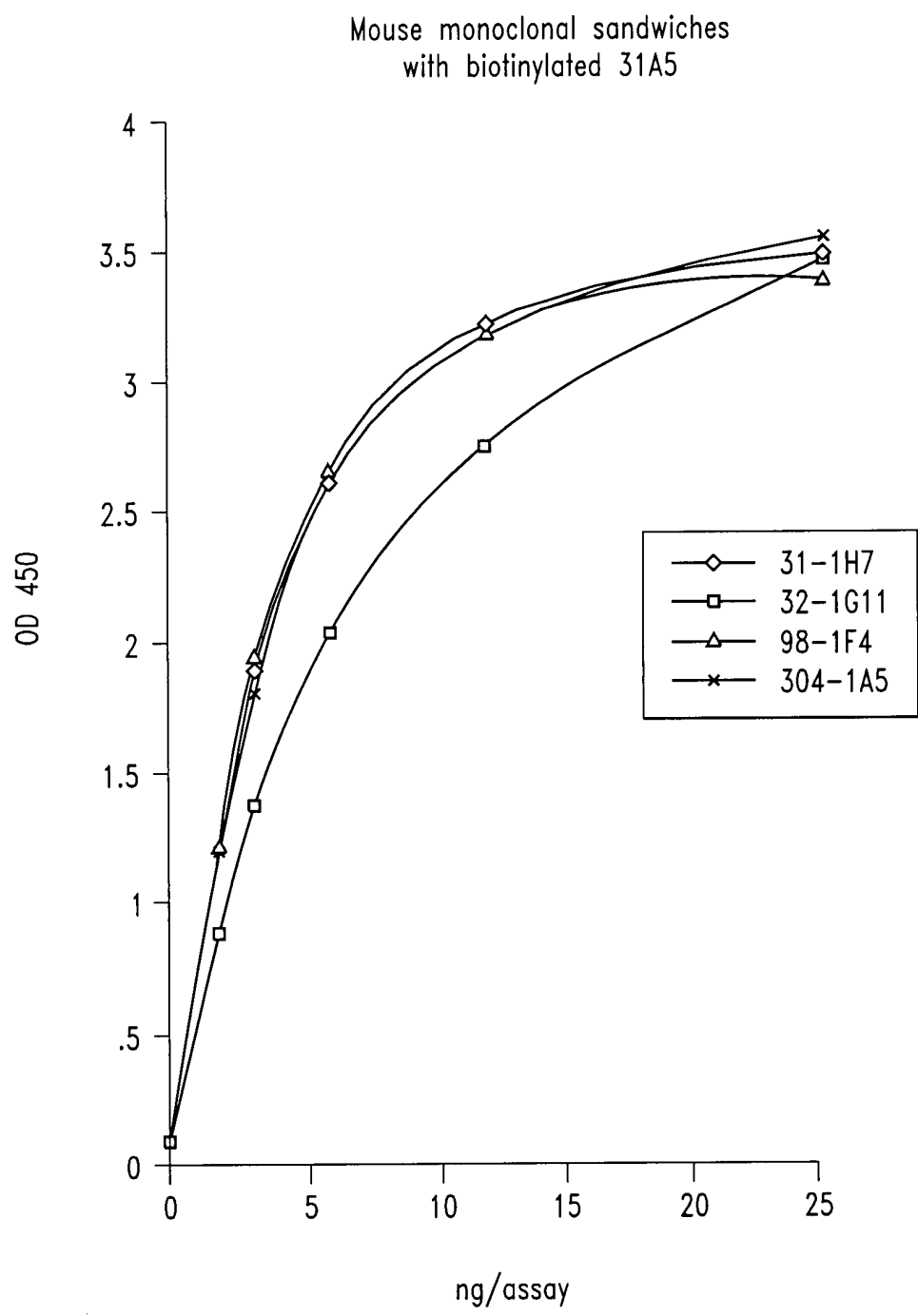


Fig. 7A

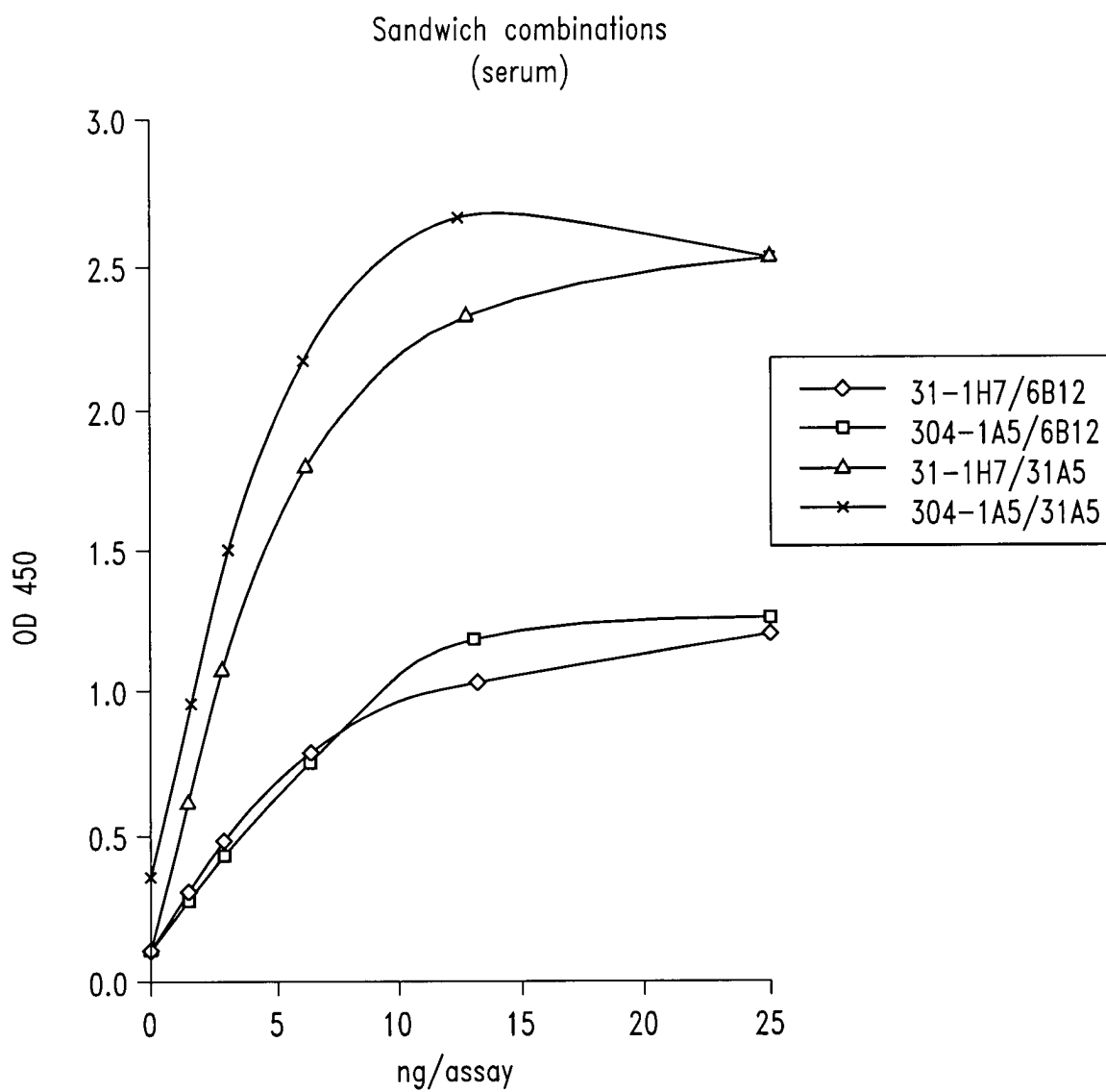


Fig. 7B

FIGURE 7C

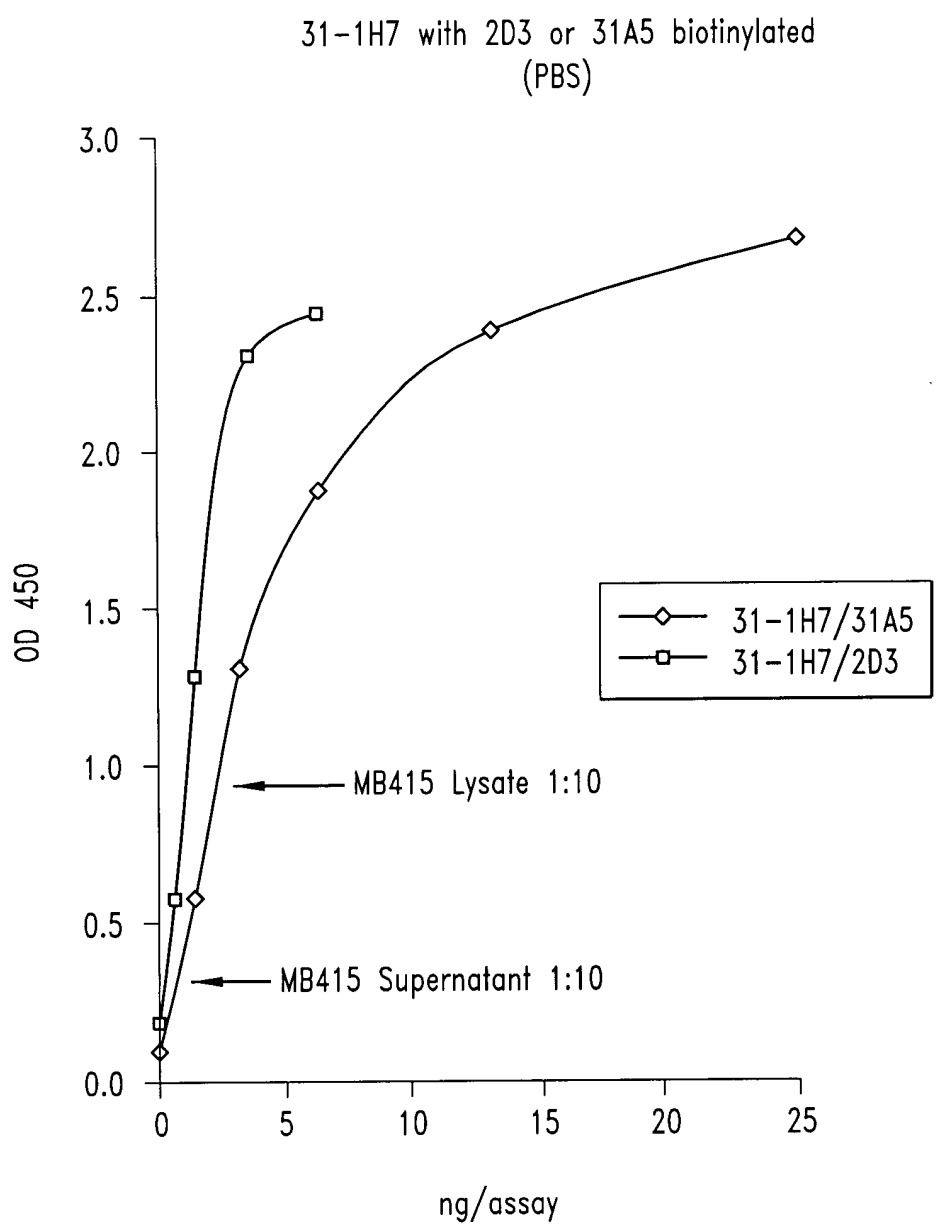


Fig. 7C

FOOTNOTES

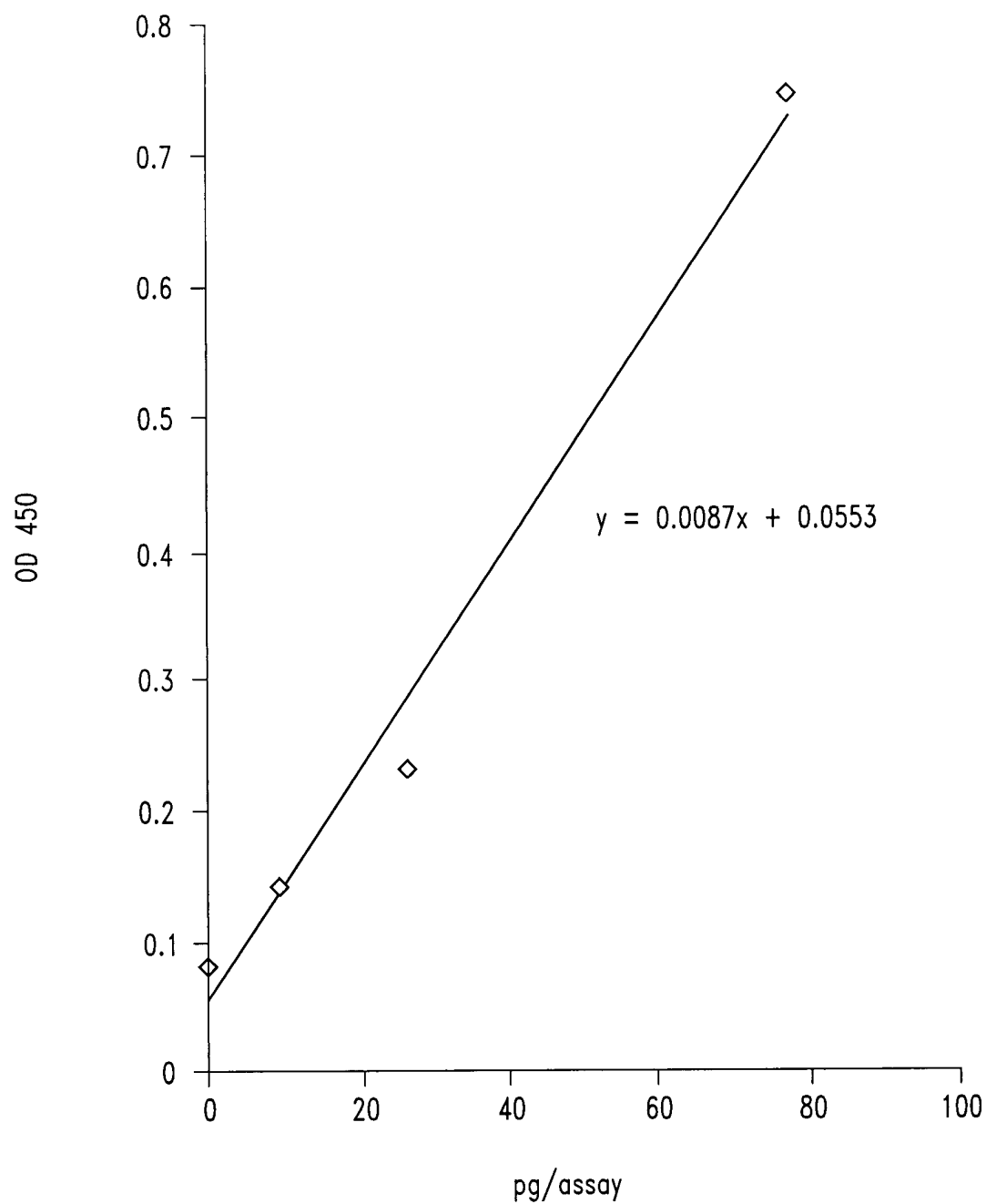


Fig. 8

Detection of mmamglobulin in sera

Serum #	Status	Western	Mamaglobin [pg/ml]	OD	Mamaglobin [pg/ml]**	MRNA in blood*
6 (aka 3534)	BrCA	+	4980-9600	3.8	8732	not tested
3	BrCA	nd	560-1245	2.6	2392	+
4	BrCA	nd	311-622	1.7	1443	+
12	BrCA	nd	311-622	1.5	2298	weakly +
17	BrCA	nd	149-311	0.6	1498	+
11	BrCA	nd	149-311	0.6	847	+
10	BrCA	nd	74-149	0.38	356	nd
1	Normal F	nd	38-74	0.21	2333	not tested
18	Normal M	nd	38-74	0.2	636	not tested
8	BrCA	nd	38-74	0.19	284	nd
9	Normal F	nd	38-74	0.18	188	not tested
5	Normal F	nd	<33	0.16	43	not tested
2	Normal F	nd	<33	0.14	149	not tested
7	Normal F	nd	<33	0.13	96	not tested
14	Normal F	nd	<17	0.05	18	not tested
16	Normal F	nd	<17	0.01	363	not tested
13	Normal F	nd	<17	0.01	443	not tested
15	Normal F	nd	xxx	xxx	10.8	not tested

Fig. 9

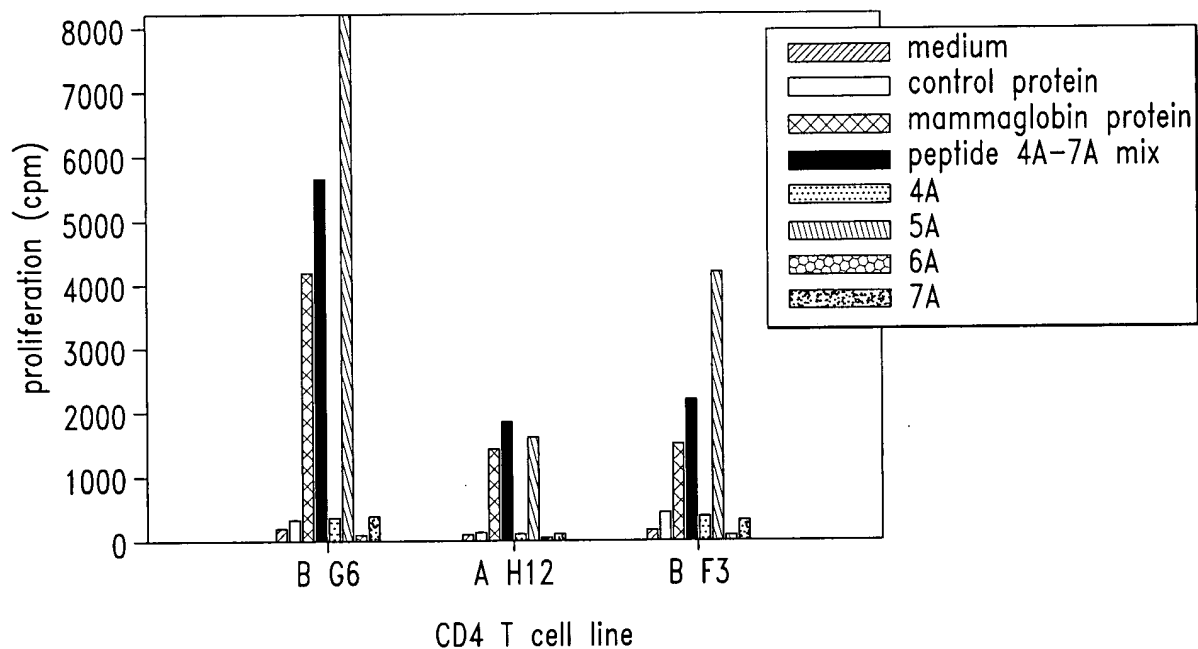


Fig. 11A

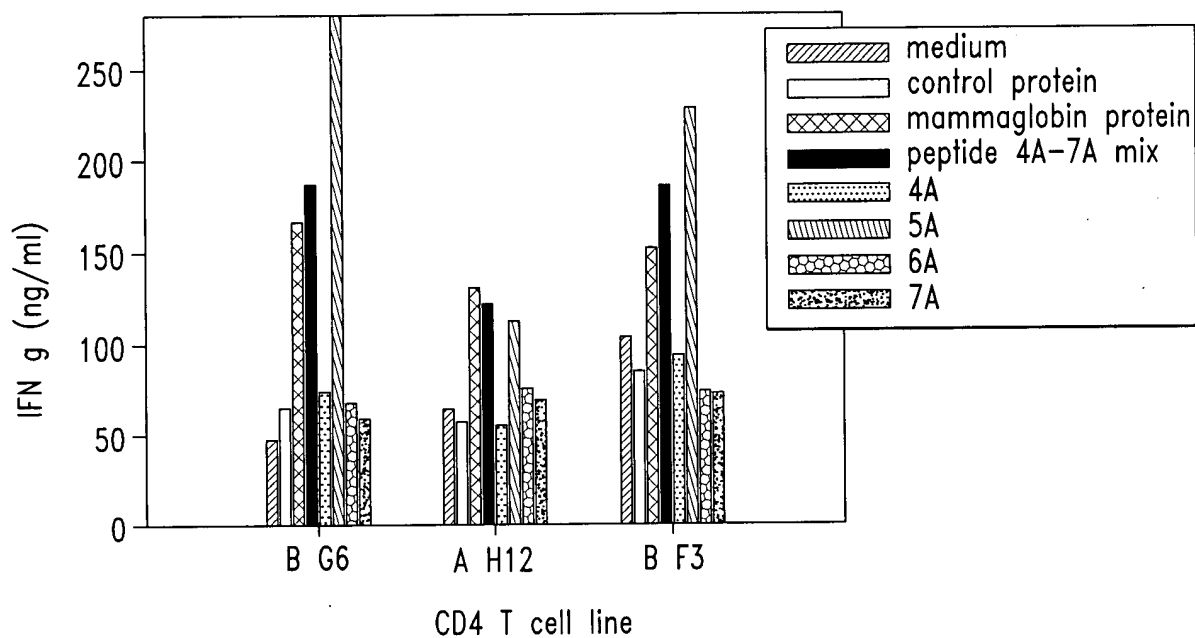


Fig. 11B

MKLLMVLMLAALSQHCYAGSGCPLENVISKTNPQVSKTEYKELLQEFIDDNATTNAIDELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF

#	Start positon	sequence (length)	score
1	2	KLLMVLMLA (9)	148
2	3	LLMVLMLAA (9)	72
3	4	LMVLMLAAL (9)	60
4	66	FLNQTDETL (9)	48
6	83	LIYDSSLCDL (10)	151
7	2	KLLMVLMLAA (10)	148
8	80	FMQLIYDSSL (10)	71
9	58	AIDELKECFL (10)	26
10	45	LLQEFIDDNA (10)	17

Fig. 12

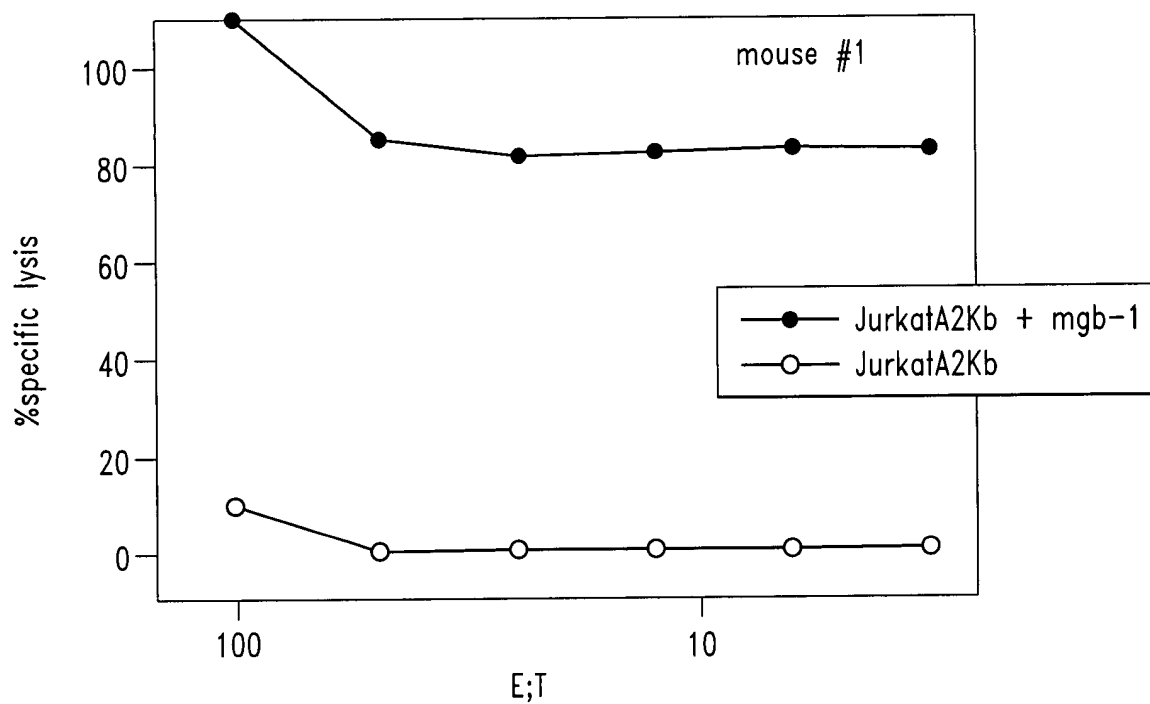


Fig. 13A

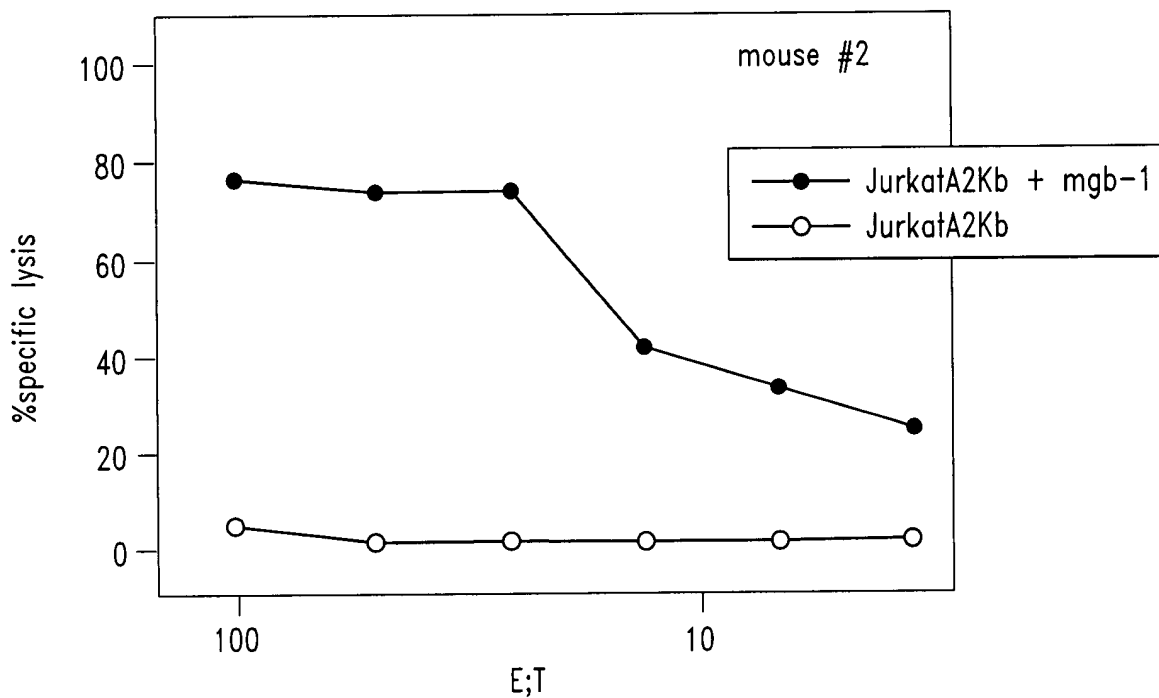


Fig. 13B

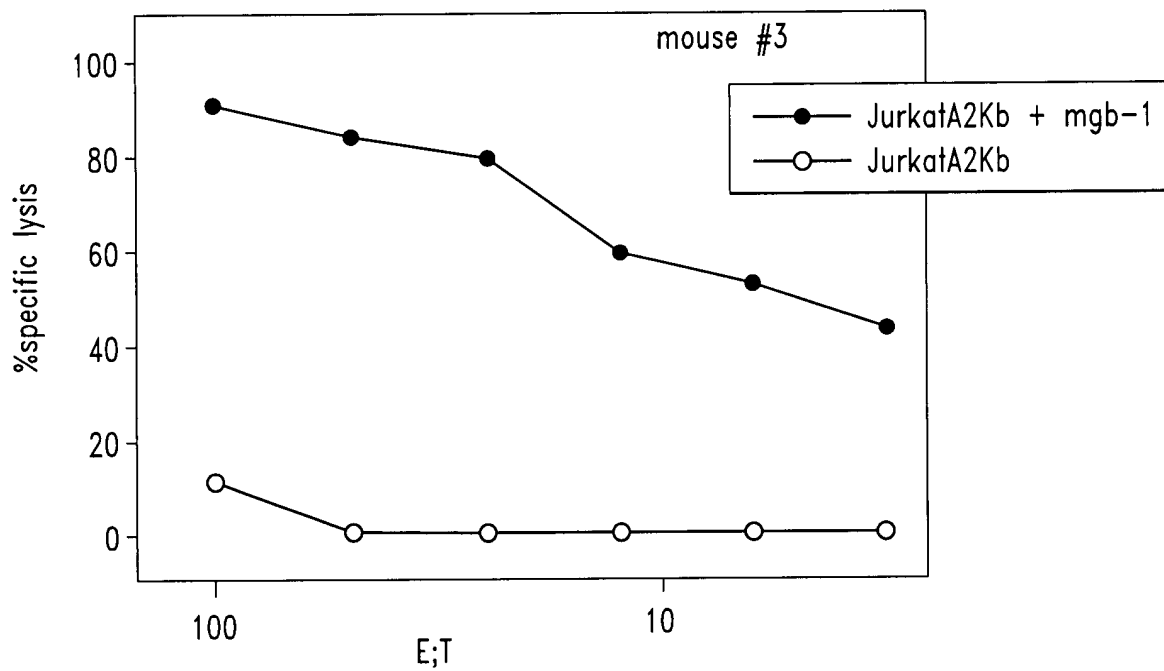


Fig. 13C

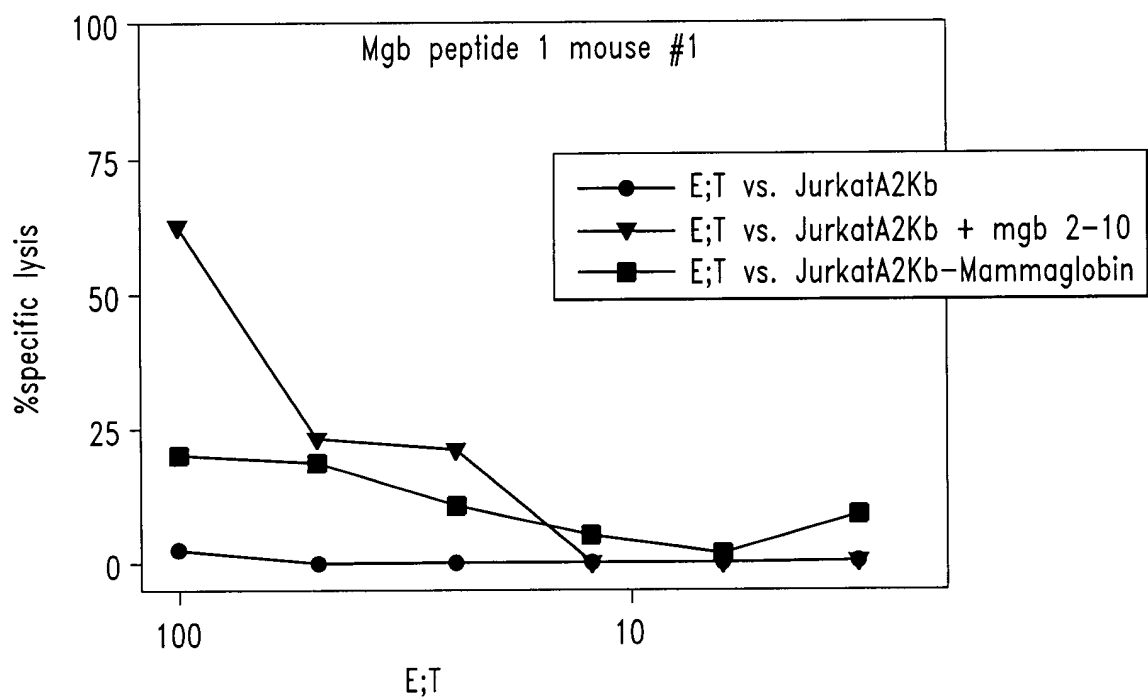


Fig. 14A

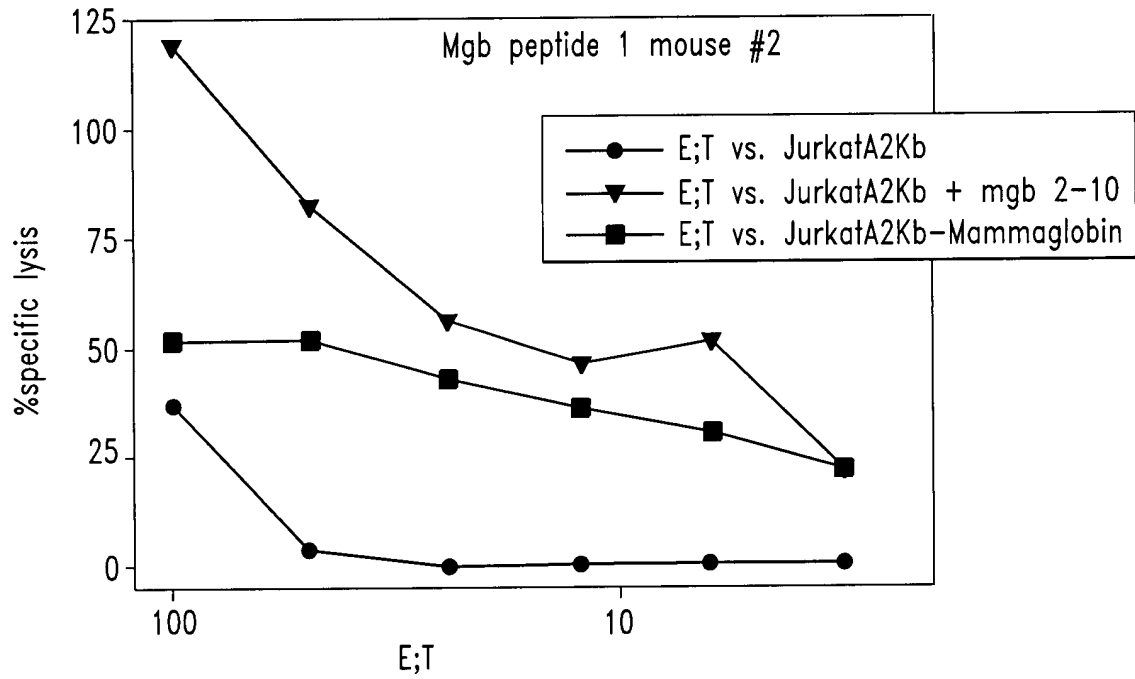


Fig. 14B

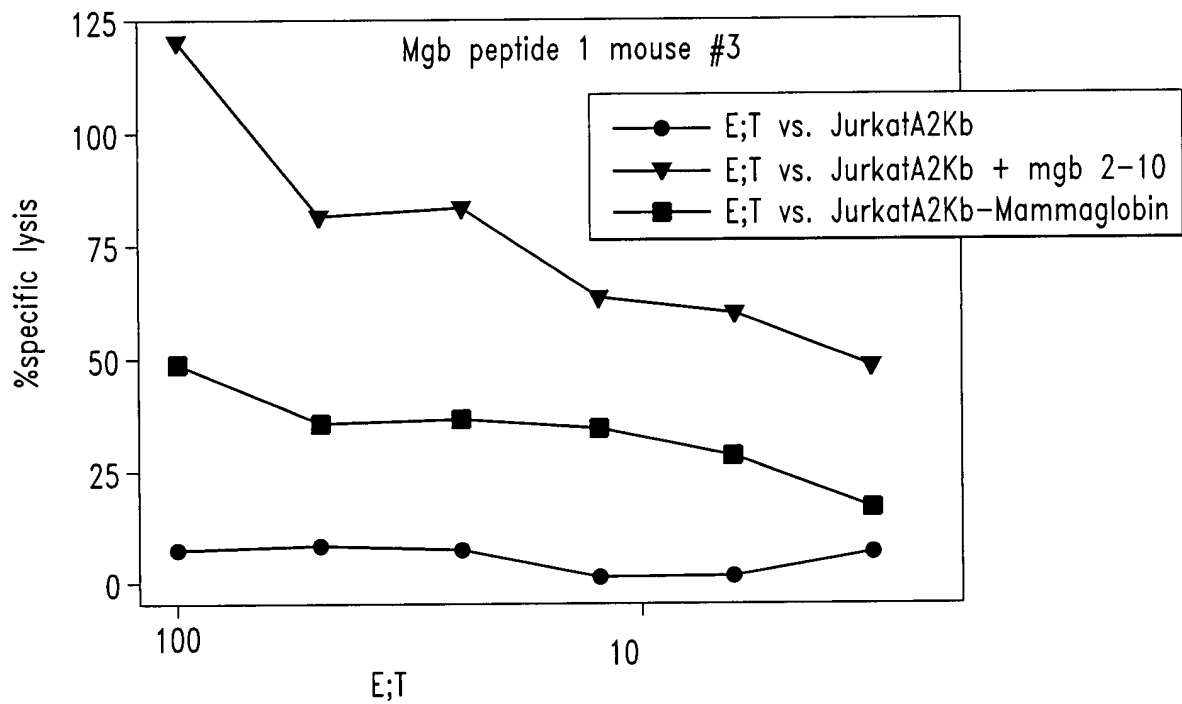


Fig. 14C

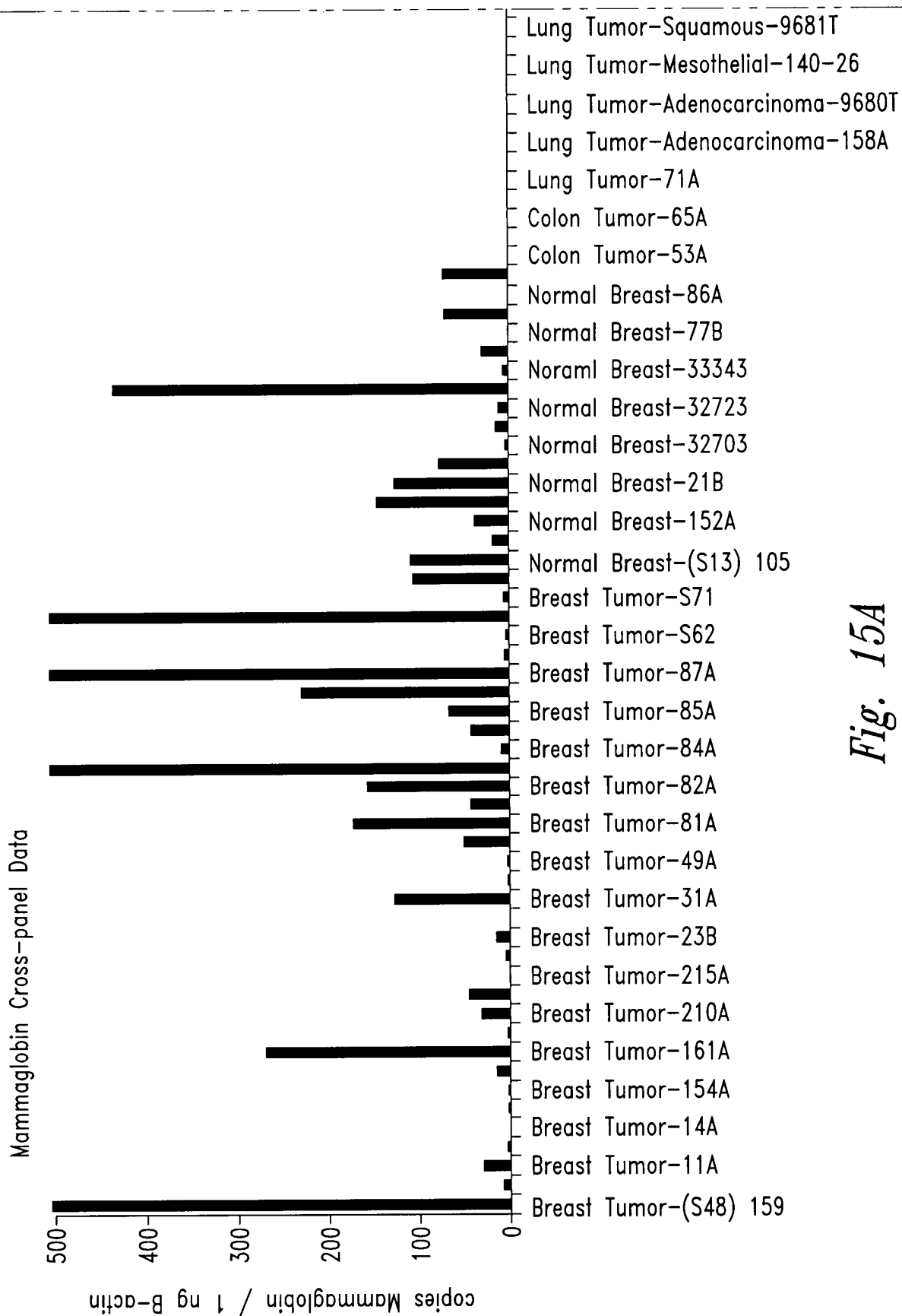


Fig. 15A

Normal Testes-4C
 Normal Stomach-73A
 Normal Stomach-137A
 Normal Stomach-137A
 Normal Small Intestine-66B
 Normal Skin-138A
 Normal Skin-60A
 Normal Skeletal Muscel-128A
 Normal Retina-32263
 Normal Ovary-93B
 Normal Lung-Clontech
 Normal Lung-58A
 Normal Lung-51C
 Normal Liver-56A
 Normal Liver-136A
 Normal Kidney-69A
 Normal Kidney-119A
 Normal Esophagus-1375
 Normal Colon-50B
 Normal Brain-Clontech
 Normal Brain-75A
 Normal Bone Marrow-74A
 Normal Bladder-S9-1
 Normal Aorta-1375
 Normal Prostate-131A
 Normal Prostate-48B
 Normal Prostate-45A
 Normal Prostate-34C
 Normal Prostate-117A
 Prostate Tumor-40A
 Prostate Tumor-35A
 Prostate Tumor-135A
 Prostate Tumor-115A
 Ovary Tumor-120A
 Lung Tumor-Squamous-96A

Fig. 15B

MB415 cells versus copy number for
Mammaglobin

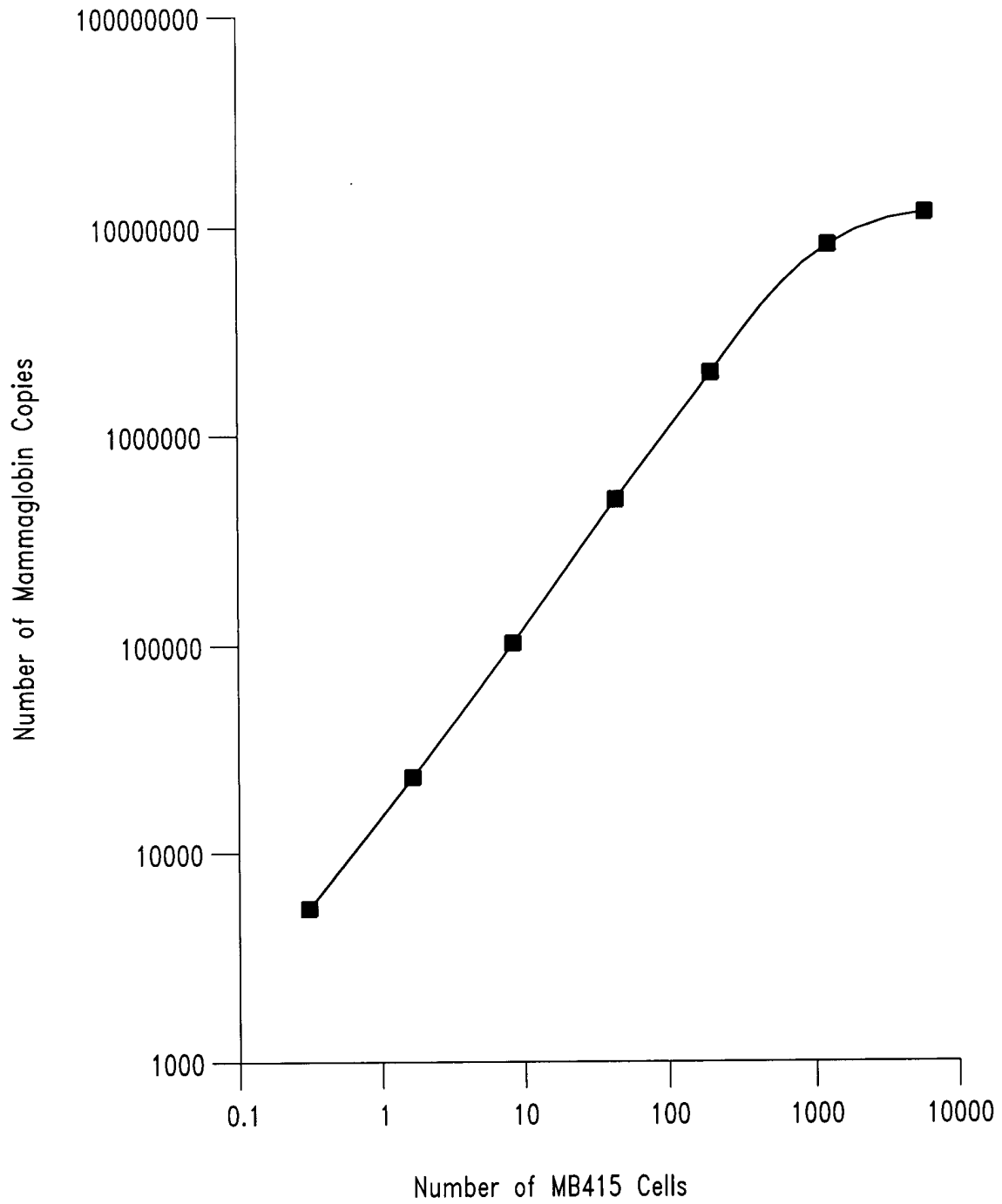


Fig. 16

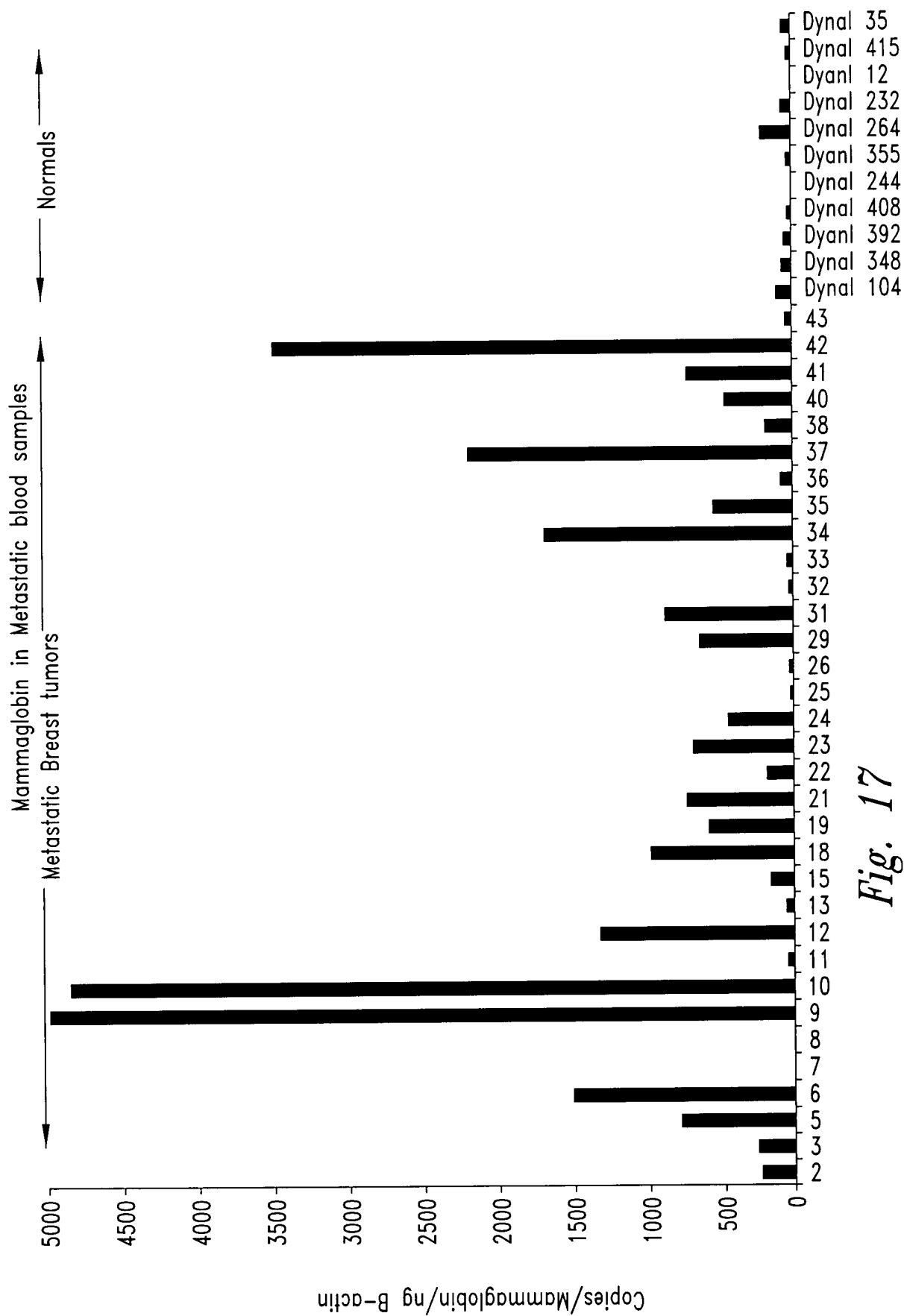


Fig. 17

D117 mgb CD4 proliferation - large assay #2													
line #	name	priming	pef	media	DMSO	1A-7A	3A	5A	7A	mgb B 5A	Hmammm 10	Hmammm 1	Hmammm 1
1	AB:C9	5A		551	549	5478	454	12699	329	888	9989	1944	1222
2	AB:C11	5A		155	84	13737	159	17250	137	596	18027	14327	4599
3	AB:E7	5A		582	551	7815	198	12876	485	1284	11457	8696	1890
4	AB:H12	5A		1309	1725	18113	865	5850	1264	295	1159	4232	922
5	AB:A7	1A-7A		538	683	15648	4500	112	22045	417	2758	1822	792
6	AB:A9	1A-7A		478	378	6939	396	426	4095	135	418	282	135
7	AB:BB	1A-7A		1802	1802	29047	9277	2828	5838	1177	617	883	2307
8	AB:C9	1A-7A		2142	2258	18814	3168	2836	11835	2954	925	1006	790
9	AB:G7	1A-7A		1553	992	7754	2004	3355	3629	492	5405	3744	2524
10	AB:G8	1A-7A		1607	1577	7863	1489	3487	1752	689	5839	2586	2288
11	AB:H12	1A-7A		3101	2823	23408	24070	3958	8379	2953	15009	5988	2759
12	AB:H4	1A-7A		878	691	16789	674	3658	11797	478	1157	1189	687
13	CD:A4	1A-7A		124	520	20866	21542	805	3049	167	16009	4098	455
14	CD:A5	1A-7A		1439	328	12641	22252	2925	1358	563	4822	883	211
15	CD:C7	1A-7A		76	48	67	86	39	38	40	106	91	79
16	AB:G7	5A		173	477	1073	184	127	489	562	985	543	629
17	AB:H12	5A		948	329	2001	849	1301	266	380	775	1340	355
18	AB:C10	5A		223	181	486	254	341	97	204	340	252	133
19	AB:C11	5A		247	164	22728	148	15534	181	222	20054	21733	8331
20	AB:G8	5A		2125	2048	2408	1618	985	1496	1217	4175	2548	1845
21	AB:G7	5A		91	167	1688	162	2582	93	70	1013	518	178
22	AB:H2	5A		411	720	21053	271	11029	157	220	10420	9317	6009
23	AB:D1	5A		222	608	204	412	276	125	57	1891	1171	741
24	AB:E9	5A		315	457	390	191	1195	177	135	847	286	341
25	AB:G8	1A-7A		485	295	5014	70	2148	48	465	20516	12078	5873
26	AB:H4	1A-7A		545	192	14133	180	891	7519	105	2847	869	578
27	AB:D12	1A-7A		1852	1522	13318	8498	3131	4081	946	20077	11118	8972
28	AB:D1	1A-7A		1448	1614	4205	1199	1186	1822	430	5215	3124	3258
29	AB:H1	1A-7A		6572	3885	18528	14527	1817	13029	1587	11289	4834	1968
30	AB:A7	1A-7A		1072	525	15470	2718	907	12379	230	5281	2080	359
31	AB:B12	1A-7A		540	797	17558	703	15480	659	6354	18054	13983	5575
32	AB:F7	1A-7A		551	455	8374	7694	2462	329	996	2681	2532	941
33	AB:G7	1A-7A		652	710	8278	1018	3753	2941	624	6170	3583	1050
34	CD:C7	1A-7A		109	175	14322	3891	10183	628	76	9438	2217	876
35	CD:D8	1A-7A		824	2270	10285	4280	1681	1314	997	1715	761	710
36	CD:G4	1A-7A		177	72	28912	87	24392	103	54	18285	13873	10861
37	CD:G5	1A-7A		230	152	16874	161	6487	45	103	15209	9892	4354
38	CD:G3	1A-7A		146	178	26356	138	22005	90	96	19394	15188	10128
39	CD:G6	1A-7A		129	84	12775	115	2504	81	80	6922	3365	696
40	CD:C9	1A-7A		2293	2507	8808	3372	2634	3247	2610	3722	2285	1937
41	CD:H10	1A-7A		430	290	29772	306	23992	438	424	20508	22871	7906
42	CD:H11	1A-7A		542	227	24760	324	17835	128	131	16142	15662	10109

FIGURE 19

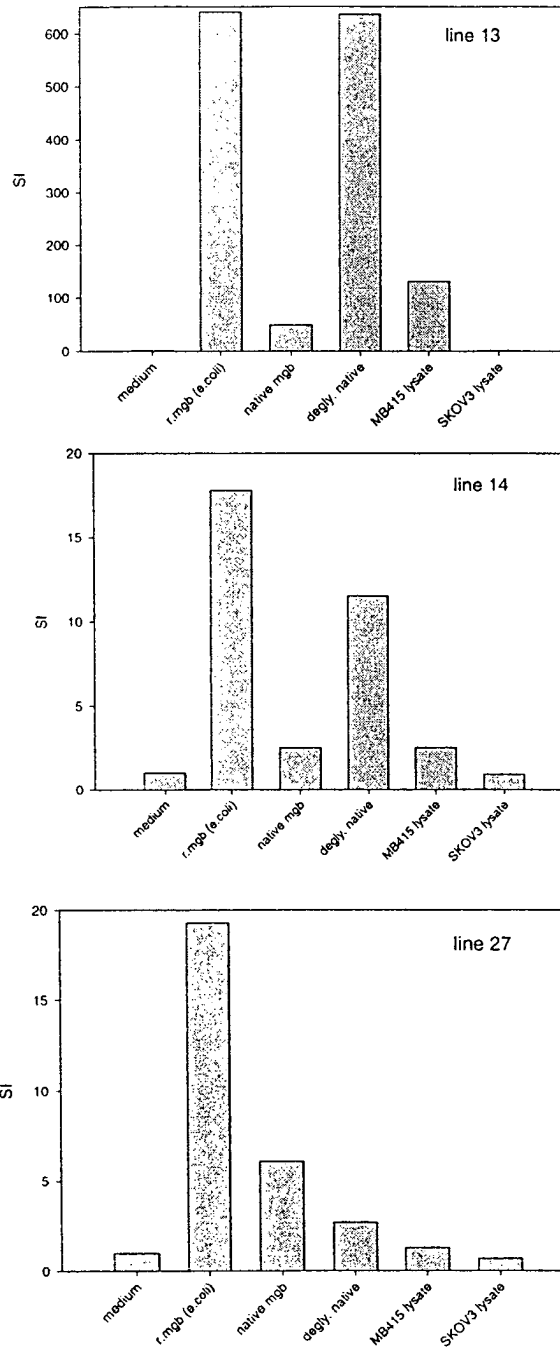


Fig. 20

H ₂ N-	Met	His tag 6aa	Ra12 (short) 30aa	HindIII 2aa	Human mammaglobin (full length) 93aa	-C00
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FIGURE 21

Ra12(s)MammFL pCRX1 Expression Screen

